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**TO:** Name: Examiner Russell L. Guill of Art Unit 2123  
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**FAX NO.:** 8.1.571.273.8300**DATE:** October 19, 2007**FROM:** J. Paul Plummer (713) 431-7360**Fax No.** (713) 431-4664Transmitted by: **Monica J. Stansberry**

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**RECEIVED IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**US PATENT APPLICATION NO.: 10/586,373 filed on July 14, 2006ATTORNEY DOCKET NO.: 2004UR007INVENTOR(S): Max Deffenbaugh et al.**TITLE:** Method for Constructing a Geologic Model of a Subsurface Reservoir**ENCLOSED:**

Transmittal Form.....[1 page(s)]  
Response to First Office Action .....[15 page(s)]

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OCT 19 2007

PTO/SB/21 (09-04)

Approved for use through 07/31/2008. OMB 0851-0031

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|---|------------------------|------------------------|
| <b>TRANSMITTAL FORM</b><br><br>(to be used for all correspondence after initial filing) | Application Number     | 10/586,373             |
|   | Filing Date            | July 14, 2006          |
|   | First Named Inventor   | Max Deffenbaugh et al. |
|   | Group Art Unit         | 2123                   |
|   | Examiner Name          | Russell L. Guill       |
| Total number of pages in this submission  | Attorney Docket Number | 2004UR007              |

| ENCLOSURES (check all that apply)  |   |  |
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| <input type="checkbox"/> After Final   | <input type="checkbox"/> Petition to convert a Provisional Application          | <input type="checkbox"/> Proprietary Information                                     |
| <input type="checkbox"/> Affidavits/declaration(s)                           | <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence | <input type="checkbox"/> Status Letter   |
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| <input type="checkbox"/> Certified Copy of Priority Document(s)              | <input type="checkbox"/> Landscape Table on CD                                  | 2.   |
| <input type="checkbox"/> Response to Missing Parts/Incomplete Application    | Remarks   |  |
| <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53 |   |  |

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|---|--|
| Firm or Individual Name                   | J. Paul Plummer, Reg. No. 40,775<br>ExxonMobil Upstream Research Company |
| Signature                                 | <i>J. Paul Plummer</i>   |
| Date                                      | 19 October 2007  |

| CERTIFICATE OF TRANSMISSION / MAILING  |                      |
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| Date   | 19 October 2007      |

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Response to Office Action dated 07/19/2007

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No. : 10/586,373 Confirmation No.: 4094  
Applicant : Max Deffenbaugh  
Filed : July 14, 2006  
TC/Art Unit : 2123  
Examiner : Russell L. Guill  
Docket No. : 2004UR007

Mail Stop Amendment  
Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

*Via Facsimile: 8.1.571.273.8300***RESPONSE TO FIRST OFFICE ACTION**

Sir:

This communication is in response to the Office Action mailed July 19, 2007 concerning the above identified patent application.

**Remarks** begin on page 2 of this paper;

**Amendments to the Claims** begins on page 7 of this paper;

**Conclusion** begins on page 15 of this paper.